DOCUMENT RESUME

ED 438 283 SP 039 033

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TITLE Student Science Teachers' Accounts of a Well-Remembered

Event about Classroom Management.

PUB DATE 2000-04-00

NOTE 18p.; Paper presented at the Annual Meeting of the American

Educational Research Association (New Orleans, LA, April

24-28, 2000).

PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS *Classroom Techniques; Discipline; Higher Education;

Preservice Teacher Education; *Science Education; *Science Teachers; Secondary Education; Secondary School Science; *Student Behavior; *Student Teachers; Teacher Behavior

ABSTRACT

This paper is about how 36 student science teachers described and responded to a classroom management problem. Each had written an account of a well-remembered event about classroom management. The accounts were analyzed to determine whether student teachers attended to the engagement of groups or focused on the misbehavior of individuals, and whether they attempted to foster growth or enforce compliance. Only about half of the student teachers attended to the engagement of groups, and fewer than half attempted to foster pupil growth. Many demonstrated a pressing need for classroom management guidance. Accordingly, science teacher educators should analyze their student teachers' accounts of a well-remembered event about classroom management so as to guide them to become better managers. An appendix presents one student teacher's account of a well-remembered event about classroom management. (Contains 24 references.) (Author/SM)



Student Science Teachers' Accounts of a Well-Remembered Event About Classroom Management

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New Orleans, LA, April, 2000

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Abstract

This article is about how 36 student science teachers described and responded to a classroom management problem. Each had written an account of a well-remembered event about classroom management. The accounts were analyzed to determine whether the student teachers attended to the engagement of groups or focused on the misbehavior of individuals and whether they attempted to foster growth or enforce compliance. Only about half the student teachers attended to the engagement groups, and fewer than half attempted to foster pupil growth. Thus many demonstrated a pressing need for classroom management guidance. Accordingly, science teacher educators should analyze their student teachers' accounts of a well-remembered event about classroom management so as to guide them to become better managers.



Student Science Teachers' Accounts of a Well-Remembered Event About Classroom Management

How can science teacher educators guide their student teachers to become better classroom managers? Classroom management refers here to the process of establishing and maintaining social order so that instruction and learning can occur (Doyle, 1986). Nevertheless, the term is readily equated with discipline, the treatment of misbehavior, behaviors the teacher regards as competing with, disrupting, or threatening to disrupt instruction (Doyle, 1986). Classroom management, however, includes a wide range of duties aside from discipline (e.g., establishing routines, distributing materials, and pacing classroom events), duties directed at engaging groups of pupils in learning activities rather than at treating the misbehavior of typically only a few individuals (Doyle, 1980; Good & Brophy, 1991; Kounin, 1970, Metz, 1978; Sanford & Evertson, 1981). Consequently, teachers who see themselves as a classroom manager tend to be more successful than those who see themselves as simply a disciplinarian (Good & Brophy, 1991).

Managing a classroom is a complicated enterprise. Whereas order is fragile, classroom events are complex, many occurring swiftly and simultaneously, and often unpredictably (Doyle, 1979). Moreover, conceptions of what constitutes order vary radically, within as well as among schools, even for comparable situations and activities (Doyle, 1986; Riner & McCarthy, 1996). Management skills, however, are what principals (Veenman, 1984), inservice supervisors (Zuckerman, 1997), and the public (Gallup, 1983) focus on when assessing the efficacy of a teacher. Thus classroom management is a pressing concern for novice teachers (Doyle, 1986;



Fuller, 1969; Ganser, 1999; Willower, 1975; Veenman, 1984), including student teachers (Bullough, 1989).

effective classroom manager (Lortie, 1975). First, it is the cooperating teacher, not the student teacher, who establishes the critically important rules and procedures for defining and sustaining order (Bullough, 1989). Second, it takes considerably longer than the several months of student teaching to develop the skills necessary for monitoring pupil engagement while at the same time teaching the meaningful lessons that avert misbehavior (Doyle, 1986; Good & Brophy, 1991; Kohn, 1996; Kounin, 1970). It also takes time for the student teacher to develop a classroom culture based on mutual respect and trust. Such a culture develops when the teacher approaches management problems as an opportunity to foster growth rather than as grounds for enforcing compliance (Kohn, 1996). Because the benefits of fostering pupil growth are long range rather than immediate, however, teachers, especially student teachers, tend to overlook them (Riner & McCarthy, 1996). Consequently, teacher educators need a way to determine whether their student teachers are attending to the engagement of groups rather than focusing on the misbehavior of individuals and whether they are attempting to foster growth rather than enforce compliance.

Accordingly this article is about how 36 student science teachers described and responded to one of their own classroom management problems. The article is based on the student teachers' written accounts of a well-remembered event about classroom management. A well-remembered event is an incident or episode from a teacher's own practice that he or she considers especially salient or memorable (Carter, 1990, 1993, 1994; Carter & Gonzalez, 1990). Along with a description of the event itself, such accounts ordinarily consist of an analysis of the event,



including its implications for teaching. Not only has the writing of such accounts enabled preservice teachers to reflect productively on a practical problem (Valdez, Young, & Hicks, 1995), but the accounts themselves generate rich information for teacher educators about how their students are thinking about such problems (Carter, 1990, 1994; Carter & Gonzalez, 1990). Thus the purpose of this article is to show how some student science teachers described and responded to one of their own classroom management problems and thereby, to argue the value of science teacher educators analyzing their student teachers' accounts of a well-remembered event about classroom management so as to guide them to become better managers.

Method

Collecting the Accounts

Forty-five student science teachers (four cohorts, each consisting of 7 to 13 student teachers) were asked to submit, during the sixth week of their student teaching semester, a one-page account of a well-remembered event about classroom management. To prepare for writing the account, they were encouraged to keep, during the fifth week, a journal of their classroom management experiences. They were told the account should include not only a description of the event itself but an analysis of the event (based on their own readings, course work, and/or practical knowledge), including its implications for teaching.

All of the student teachers were preparing for New York State provisional certification to teach science in grades 7-12. About half were student teaching in a middle or junior high school; about half, in a high school. Each had taken the science-teaching methods course in the



immediately preceding semester and had been regularly observing science classes as a requirement for that course.

About half of the student teachers were undergraduates completing a major in either biology, chemistry, geology, or physics. The others were post-baccalaureate students in either a one-year nondegree or a two-year master's program. About half were traditional students in their early 20s. The others were in their 30s, 40s, and 50s, most of them choosing to teach as their second, science-based career. The ratio of males to females was about 3 to 1.

Analyzing the Accounts

Forty-one of the 45 student teachers submitted an account of a well-remembered event, 36 of the accounts addressing an event expressly about classroom management. All 36 of the accounts about classroom management featured a management problem.

Each of the 36 accounts was first sorted into one of two categories depending on how the student teacher described the problem. One category subsumed those accounts wherein the student teacher described the problem in terms of engaging a group or groups of pupils, including the entire class, in a learning activity. The other category subsumed those accounts wherein the student teacher described the problem in terms of treating the misbehavior of one or two pupils.

Next each of the 36 accounts was sorted into one of three categories depending on how the student teacher responded to the problem. The first category subsumed those accounts wherein the student teacher offered no solution to the problem. The second category subsumed those accounts wherein the student teacher proposed or undertook only to enforce compliance with classroom rules or procedures. The third category subsumed those accounts wherein the



student teacher proposed or undertook to foster pupil self-control, moral development, a willingness to cooperate, or an interest in learning.

Results

Problem Descriptions

In their accounts of a well-remembered event about classroom management, 19 of the 36 student science teachers described their problem in terms of engaging a group or groups of pupils, including the entire class, in a learning activity. The remaining 17 described their problem in terms of treating the misbehavior of one or two pupils.

Problems about engaging a group or groups. Fourteen of the 19 student teachers who described their problem in terms of engaging a group or groups of pupils in a learning activity defined their problem as one of establishing order. Some described classes slow to settle down or groups distracting other groups even to the point of throwing laboratory materials around the class. Although some of the student teachers described a group or class as routinely disorderly, most identified a particular occasion for the disorder, such as right after lunch or on a Friday afternoon, or when the cooperating teacher was no longer present, at least one group had completed the assigned task, the lesson was especially difficult, or there had been a commotion elsewhere in the school or community.

Five of the 19 student teachers, however, attributed the problem not to some cause for disorder over which they had apparently little or no control but to the learning activity itself, either its execution or design. Three of the five ascribed the cause to a failure either to make the objectives, directions, and expectations explicit; to attend to the passive pupils (inasmuch as the



"attention grabbers" were monopolizing the teacher's time), or to pace the activity for the "slower" pupils. Two ascribed the cause to the fact that the task either was dull or seemed trivial.

Problems about treating misbehavior. Of the 17 problems about treating the misbehavior of one or two pupils, nine involved chronically disruptive and/or hostile pupils who would call out (sometimes abusively), chatter incessantly, stroll around the classroom, and/or throw small objects. The other eight problems centered on a single instance of one or two pupils fighting, using hostile or abusive language, failing to comply with rules or procedures, or being inattentive.

Thus the problems the student teachers described were ordinary classroom management problems. Only about half the student teachers, however, described their problem in terms of engaging a group or groups of pupils in a learning activity, and of those, only five ascribed the cause of the problem to the learning activity itself.

Problem Responses

Six of the 36 student teachers offered no solution to their classroom management problem. Of the remaining 30, 14 proposed or undertook only to enforce compliance with classroom rules or procedures, whereas 16 proposed or undertook to foster pupil growth.

Enforcing compliance. Of the 14 student teachers who proposed or undertook only to enforce compliance, seven formulated a definite strategy. They either froze and waited silently, fixed eyes on the misbehaver while announcing a wait for silence, increased the pace of the lecture, expressed disapproval, threatened to make "referrals" to the assistant principal, or limited the use of the lavatory pass.

The other seven, however, made resolutions too vague to implement. For example, some of the resolutions were too general, such as "I need to come down hard on them earlier in the



period," or even more generally, "I must always maintain order." Others specified only what should not (rather than what should) be done, such as not punishing the entire class, not copying the disciplinary techniques of the cooperating teacher, not sending other misbehavers to the assistant principal, or not giving out "anything that can break or fly through the air."

Fostering growth. Sixteen student teachers, however, proposed or undertook a strategy to foster pupil self-control, moral development, a willingness to cooperate, or an interest in learning. The one student teacher who focused on fostering pupil self-control proposed to use a standard opening routine, such as a few minutes of seat work, to begin each lesson. The three focused on fostering moral development discreetly indicated the unacceptable behavior and then provided an opportunity shortly thereafter for the misbehaver to accept responsibility for the behavior, reflect on how it affected others, and make a commitment to change.

Of the six student teachers focused on fostering a willingness to cooperate, four either signaled the correct behavior, drafted the misbehavers into assisting with the lesson, or permitted the misbehaver to work in another class on an alternative assignment. The other two student teachers treated hostility or inattention by developing a relationship with the misbehavers outside of class.

Finally, six student teachers focused on fostering their pupils' interest in learning. One enlivened a seemingly trivial task by presenting it as a competitive game. Another videotaped the local creek so as to make weathering and erosion more relevant to their everyday lives. More generally, the others proposed to prepare and organize their instructional materials ahead of time, to "over plan" activities with remedial and enrichment tasks so as to sustain the interest of the



"slower" and "faster" groups; or to introduce activities with a carefully rehearsed statement of the objectives, directions, and expectations.

In summary, although many of the student teachers proposed or undertook a strategy to foster pupil growth, more than half had either no response or responded by attempting only to enforce compliance. Moreover, the responses to enforce compliance tended to be vague, ineffectual, or confrontational, hardly conducive to the development of a classroom culture based on mutual respect and trust.

Conclusions and Implications

The student science teachers' written accounts of a well-remembered event about classroom management clearly demonstrated whether each student teacher attended to the engagement of a group or groups of pupils or focused on the misbehavior of one or two.

Moreover, for those attending to the engagement of a group or groups, the accounts demonstrated whether the student teacher identified the design or execution of the learning activity as a cause of the problem. Finally the accounts demonstrated whether the student teacher had a response to the problem, and if so, whether he or she attempted to enforce compliance or foster growth. Thus such accounts can enable science teacher educators to understand how each of their student teachers is thinking about significant aspects of a management problem and accordingly, guide them to become a better manager.

For example, after reading Tina's account of the management problem that emerged during the second of her two earth science classes (see the Appendix for a slightly edited version of Tina's account), a science teacher educator could guide her to recognize the importance of



adjusting her lessons to the particular needs of each class. More specifically, Tina could be guided to see that the pupils in her second class needed express opportunities first to make the topic of molds and casts relevant to their everyday lives and then to make sense of the laboratory directions. Later, Tina could be guided to create, for each of several other laboratory-based lessons, approaches and tasks appropriate to the variety of backgrounds and abilities in both classes. Then, instead of precluding the second class' participation in subsequent laboratory activities, Tina could foster in that class a willingness to cooperate and an interest in learning.

In fact, the first factor to consider when a management problem emerges is whether the lesson is meaningful, that is whether pupils are finding the topic relevant and the tasks sensible (Kohn, 1996). Inasmuch as the usual mode for laboratory activities is to have pupils execute a prescribed set of procedures rather than make their own sense of a phenomenon (Champagne, Gunstone, & Klopfer, 1985), it is important that science teachers, especially for laboratory-based lessons, provide opportunities for their pupils to make the topic relevant and the tasks sensible. Accordingly, those who teach methods courses may want to have their students learn how to Vee diagram a laboratory activity (Novak & Gowin, 1984). Then, as they come to master this heuristic, their students, and ultimately their students' pupils, would have express opportunities to attend to the value of the knowledge embedded in each activity and to make sense of the procedures as well.

More than half the student teachers in this study demonstrated a pressing need for classroom management guidance even though the problems they described were quite ordinary. In fact although 5 of the student teachers recognized the significance of the learning activity and 16 proposed or undertook a strategy to foster pupil growth, only 4 of the 36 student teachers did



both. Accordingly, science teacher educators can expect their own student teachers to benefit from the specific and personalized kind of management guidance that can emerge from an analysis of their accounts of a well-remembered event about classroom management.



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Appendix

Tina's Account of Well-Remembered Event

About Classroom Management

On March 7th, I had a lab activity for two earth science classes on how fossils form. The objective was for the students to learn the differences between molds and casts. The plan was structured so they could make molds and casts using clay, sea shells, and play-dough.

Each class was first divided into six groups of about four students each and given a section of text to read to themselves. They were also given a hand-out that explained what they were to do. I purposely did not give them directions on the use of the materials because I wanted them to discover the process for themselves.

The first class went well. The students examined the materials and with just a few reminders, were able to make the molds and casts. They then returned to whole group and discussed the difficulties they encountered and how they solved them. Next they returned to their small roups, identified whether a sample made by another group was a mold or cast, and wrote how they came to their conclusion. They all seemed to understand the methods of preservation and enjoyed themselves in doing so.

The second class was a complete disaster. They began by complaining. (This should have clued me in.) As they received their materials and began to work, I could see that several groups misunderstood the directions and felt lost, so I circulated about the room prompting them to read the text and study the hand-out. Several times I had to speak to a particular boy about misusing the clay and play-dough and breaking the shells.



As the time for making the molds and casts drew to a close, I asked for their samples, finished or not. At this point I thought there would be considerable discussion of the difficulties they encountered, but I was wrong. There was almost no participation.

The nightmare began as soon as they returned to their small groups to identify the samples. The class became uncontrollable. Several of the students began breaking up the samples and throwing the pieces. I realized then that I can never give this class anything that can break or fly through the air.





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